



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/585,624

04/04/2008

Aleksej Aleksandrovich Nikiforov

U 016381-6

4694

140 7590 06/22/2011

LADAS & PARRY LLP
1040 Avenue of the Americas
NEW YORK, NY 10018-3738

EXAMINER

RIPA, BRYAN D

ART UNIT

PAPER NUMBER

1723

NOTIFICATION DATE

DELIVERY MODE

06/22/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

nyuspatactions@ladas.com
nymail@ladas.com

Office Action Summary	Application No. 10/585,624	Applicant(s) NIKIFOROV, ALEKSEJ ALEKSANDROVICH	
	Examiner BRYAN D. RIPA	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the amendment received on April 5, 2011:
 - claims 2-5 are presently pending
 - the rejection of claim 1 under 35 U.S.C. 112, second paragraph, is withdrawn in light of the amendments to the claims
 - all prior art rejections are withdrawn in light of the amendments to the claims
 - new grounds of rejection are presented below

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 2 requires the protective coating to be formed on a “metal or metal alloy valve part” (see line 1). However, while it is clear to the Examiner that the intended meaning is that the part be formed of a valve metal or valve metal alloy and not a “valve part” as explicitly claimed, it would appear that some confusion could arise based on the phrasing if one were to apply a more literal interpretation. As a result, the claim limitation is unclear since the phrasing lends itself to differing interpretations.

Additionally claim 2 contains the limitation requiring the producing of “a working voltage between said part and said electrolyte” (see line 4). However, in the invention the working voltage is applied between the part acting as the anode and another conductive element acting as the cathode (see e.g. Applicant's figure 1 in which the voltage is applied between the part, i.e. the anode and the tank acting as the cathode). As a result, it is unclear what is exactly meant by the limitation requiring the voltage to be applied between the part and the electrolyte as presently claimed.

Please note, for examination purposes the Examiner will be interpreting the claim as requiring the part to be made of a valve metal or valve metal alloy, since the Examiner believes this interpretation to be most in keeping with Applicant's intended meaning. Additionally, the limitation requiring the producing of a working voltage between the part and the electrolyte will be interpreted as the application of a working voltage to the part through the electrolyte.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 2, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by McNeill et al., (U.S. Pat. No. 3,293,158) (hereinafter referred to as “MCNEILL”).

Regarding claim 2, MCNEILL teaches a method of producing a heavy protective coating on a metal or metal alloy valve part which exhibits high adhesion on the valve part by micro-arc oxidation (see generally col. 1 lines 13-18 teaching the method for producing a coating on a metal from anodic spark reaction, i.e. micro-arc discharge) the method comprising:

- placing the part in an electrolyte on a current-conducting holder (see col. 2 lines 26-49 teaching the anode comprising a portion of which is exposed to the electrolyte, i.e. the part, and a portion which is covered in an insulating material, i.e. the current-conducting holder);
- producing a working voltage between the part and the electrolyte (see col. 2 lines 26-49 teaching the voltage being supplied between the anode and the cathode to produce a working voltage as claimed);
- increasing the voltage until a micro-arc discharge is originated on the surface of the part (see figure 1 teaching the voltage being raised; see also col. 1 lines 19-24 teaching the raising of the voltage such that dielectric breakdown occurs, i.e. where sparking or discharging occurs); and
- wherein the current-conducting holder has a coating selectively formed thereon at the air-electrolyte interface (see col. 2 lines 36-38 teaching the covered portion of the anode having a TEFLON sleeve covering which is selectively formed and acts to cover the anode at the air-electrolyte interface as claimed) and wherein the coating comprises an electroinsulating material that prevents current reduction to the part as the voltage is increased (see col. 2 lines 36-38 teaching

Art Unit: 1723

the masking of the anode specifically at the air-electrolyte boundary with a TEFLON sleeve, i.e. an electroinsulating material, which would act in the manner as claimed).

Regarding claim 3, MCNEILL teaches the method wherein the valve part is made of a metal or metal alloy selected from the group consisting of aluminum, titanium, tantalum and alloys thereof (see col. 5 lines 22-25 teaching the process for forming a coating on titanium and tantalum; see also col. 6 lines 21-23 also teaching the coating formed on aluminum).

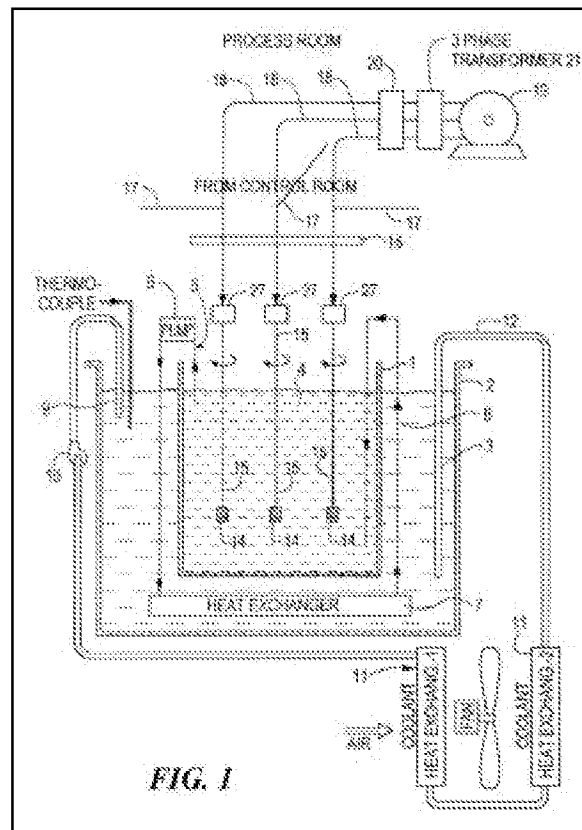
Regarding claim 5, MCNEILL teaches the method wherein the current-conducting holder is made from aluminum wire (see col. 2 lines 36-38 teaching the covered portion of the anode, i.e. the current-conducting holder, being a cylindrical rod, i.e. a wire; see also col. 6 lines 21-23 teaching the coating formed on anode of aluminum).

4. Claims 2-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Patel et al., (U.S. Pat. No. 6,197,178) (hereinafter referred to as "PATEL").

Regarding claim 2, PATEL teaches a method for producing a heavy protective coating on a metal or metal alloy valve part which exhibits high adhesion on the valve part by micro-arc oxidation (see generally col. 3 lines 20-47) the method comprising:

Art Unit: 1723

- placing the part in an electrolyte on a current-conducting holder (see col. 5 lines 43-50 teaching the body 14 to be coated placed on electrode 15 and placed in electrolyte 4);
- producing a working voltage between the part and the electrolyte (see col. 5 lines 60-62 teaching the application of a voltage between the various bodies 14); and
- increasing the voltage until a micro-arc discharge is originated on the surface of the part (see col. 6 line 7-col. 6 line 14 teaching the increasing of the voltage to generate discharge on the bodies 14); and
- wherein the current-conducting holder has a coating selectively formed thereon at the air-electrolyte interface (see col. 5 lines 44-46 teaching electrodes 15 having a coating so as to insulate the exterior surfaces of electrodes 15; see also figure 1 below depicting the insulated electrodes 15 as extending through the air-electrolyte interface) and wherein the coating comprises an electroinsulating material that prevents current reduction to the part as the voltage is increased (see col. 5 lines 44-46 teaching the protective coating being an insulating coating so as to render the exterior surface electrically inert, i.e. electroinsulating, which would act to prevent current reduction as claimed).



Regarding claim 3, PATEL teaches the method wherein the valve part is made of a metal or metal alloy selected from the group consisting of aluminum, titanium, tantalum and alloys thereof (see col. 8 lines 56-58 teaching the method applied to parts made of various aluminum alloys).

Regarding claim 4, PATEL teaches the method wherein the electrolyte comprises potassium hydroxide (see col. 7 lines 20-22 teaching the electrolyte comprising potassium hydroxide).

Response to Arguments

5. Applicant's arguments with respect to claims 2-5 have been considered but are moot in view of the new ground(s) of rejection.

However, since the same references were used in applying the new grounds of rejection, those arguments still applicable will be addressed below.

Applicant argues:

“the Teflon sleeves of McNeill et al to not provide a disclosure of a selective coating of electroinsulating material at the air-electrolyte interface portion that can prevent current reduction to the part as the voltage is increased which facilitates the production of a coating with increased thickness.” See Remarks at pages 4-5.

The Examiner respectfully disagrees with Applicant's contention that MCNEILL fails to teach the selective coating as claimed.

Specifically, MCNEILL teaches the coating of a portion of the anode rod at the air-electrolyte interface with an insulative TEFLON coating (see col. 2 lines 36-38). This coating would act in at least some degree to electrically insulate that portion of the anode at the air-electrolyte interface. Moreover, this insulating effect would necessarily result in the prevention of the current reduction to the part over an uncoated anode to at least some degree and so could be said to read on the limitation requiring a material that “prevents current reduction to the part” (see claim 2 lines 8-9).

Therefore, for at least the reasons mentioned the Examiner is of the opinion that MCNEILL still reads on the claim as presently drafted.

Applicant further argues that PATEL fails to teach the same limitation as discussed previously (Remarks at page 5). However, for similar reasons as outlined with respect to the teachings of MCNEILL, the Examiner is of the opinion that PATEL could still be said to reasonably read on the limitations as presently claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN D. RIPA whose telephone number is (571)270-

Art Unit: 1723

7875. The examiner can normally be reached on Monday to Friday, 9:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harry D Wilkins, III/
Primary Examiner, Art Unit 1723

/B. D. R./
Examiner, Art Unit 1723